



**MOTOROLA**

ommunication  
Server Guide



**AirMobile**  
SOFTWARE PRODUCTS

# Software for Lotus cc:MAIL **Wireless**


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**MOTOROLA**

**AirMobile™ Wireless Comm Server for cc:Mail  
User Guide  
Version 1.1**

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## Preface

Motorola's *AirMobile Wireless Software for cc:Mail* is a powerful addition to Lotus cc:Mail Mobile that delivers efficient, fast and cost-effective wireless e-mail services.

With cc:Mail Mobile as a foundation, *AirMobile Wireless for cc:Mail* software enables companies to communicate wirelessly with a mobile sales force, work-at-home employees, traveling executives and others who have to send and receive messages, manage business contacts, coordinate calendars, and keep in constant contact, no matter where their current workplace happens to be.

The *AirMobile Wireless for cc:Mail* product is delivered as a complete package of client and server software, and contains all the software you need for wireless connectivity. No additional client or server licenses are required.

This guide gives you complete installation and configuration instructions for Motorola *AirMobile Wireless Comm Server for cc:Mail* on an IBM compatible server or personal computer. A companion guide describes the installation and configuration procedures for the *AirMobile Wireless Comm Client for cc:Mail*.

### Optimized for the wireless environment.

Motorola *AirMobile Wireless Comm Server for cc:Mail* is optimized for the wireless environment. The software implements a powerful and efficient wireless transport and application protocol, enabling users of Lotus cc:Mail Mobile for Windows to send and receive e-mail messages quickly and easily. Wireless communication is hassle-free: no telephone lines, no elaborate credit card call sequences, no AT-type call setup configurations. Motorola's *AirMobile* software products transparently support major wireless wide area networks and operate on a variety of wireless modems. With Motorola *AirMobile* software, users simply turn on their wireless modem, load cc:Mail Mobile and they're connected to the cc:Mail server back in the office, uploading messages sent to the LAN mail server or downloading messages from the LAN mail server to the user's inbox.

*AirMobile* software is not only efficient over the air, it runs quietly and efficiently as a background task in Windows. While *AirMobile* does its job, users can continue to read or send e-mail messages or run other Windows applications.



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## 1 Before You Begin

This chapter tells you how to install and run the software. Basic concepts and terminology are presented, together with a brief discussion of how AirMobile Wireless Comm Server for cc:Mail differs from the existing communication methods for cc:Mail Mobile for Windows.

### What is AirMobile Wireless Comm Server for cc:Mail?

Motorola AirMobile Wireless Comm Server for cc:Mail is software that enables the network manager to configure a wireless communications server. This server allows users in the field to communicate with a LAN-based Lotus cc:Mail mail server or another PC having network access via wireless packet networks.

### To run AirMobile Wireless for cc:Mail

To run Motorola AirMobile Wireless Comm Server for cc:Mail, you must have the following:

- ☐ An 80386-class or higher IBM microcomputer, or 100-percent IBM-compatible computer.
- ☐ At least 4 Mbytes of RAM
- ☐ Up to 10 Mbytes of available disk space
- ☐ VGA, SVGA, or 8514/a display
- ☐ Wireless Modem (e.g., InfoTac or Mobidem-like devices)
- ☐ Wireless Network Service (e.g., Ardis, CDPD, DataTAC, Mobitex and RAM)
- ☐ Microsoft Windows, Version 3.1 or 3.11

## Understanding Motorola AirMobile Wireless for cc:Mail

Before learning how to use Motorola AirMobile Wireless Comm Server for cc:Mail, you should understand some basic wireless concepts and terminology. The following section provides a brief introduction to Motorola AirMobile Wireless for cc:Mail software.

**Note:** For a full discussion of cc:Mail and cc:Mail Mobile terms and concepts and an overview of what you can do with cc:Mail, see the Lotus "cc:Mail Mobile for Windows Getting Started Guide" and the Lotus "cc:Mail for Windows Users Guide" manuals.

### Communication Server

The *Communication Server* is a LAN-based PC computer that manages the wireless communications between wireless cc:Mail Mobile users and their LAN-based cc:Mail mailbox. The AirMobile Wireless Communication Server for cc:Mail provides wireless cc:Mail Mobile users with a wireless LAN access point.

Installing a *Communication Server* does not require cc:Mail administrator access or privileges. This helps enable quick, problem-free implementations. The *Communication Server* requires an 80386-class or higher IBM microcomputer, or a 100% IBM-compatible computer with Windows 3.1 or 3.11 operating system.

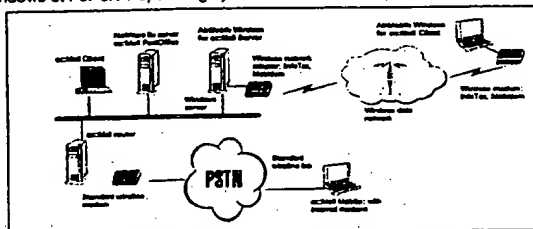


Figure 1-1 AirMobile Wireless Comm Server and Client in a cc:Mail environment



### User Profile Database

The *User Profile Database* contains one or more entries which define AirMobile Wireless cc:Mail Mobile users. A User Profile Database exists on both the Communication Server and the AirMobile Client. The User Profile Database on the Communication Server is automatically updated by the User Profile Database on the cc:Mail Mobile client running AirMobile Wireless for cc:Mail to reflect changes and preferences of the client. This greatly reduces the administrative requirements for maintaining a Motorola AirMobile Comm Server for cc:Mail.

### Wireless Registration

*Wireless Registration* defines the AirMobile optimized application protocol. This enables efficient, secure and authenticated wireless communication between a cc:Mail Mobile client and a LAN-based cc:Mail PostOffice.

### Filtering

Message filtering is a critical component for mobile applications, particularly those that rely on communication interfaces which have limited throughput and tariffs based on time or usage. This is true for all wireless wide-area data networks.

For maximum efficiency and economy with wireless networks, Lotus cc:Mail Mobile and Motorola AirMobile Wireless for cc:Mail software provide a complementary set of message filters.

Although AirMobile Wireless cc:Mail software preserves the familiar filtering methods of cc:Mail and cc:Mail Mobile, Motorola adds filters to help make your wireless connections more efficient and less expensive. For example, AirMobile software lets you select a cut-off size for messages, accepting the first few hundred bytes and cutting off the rest. You can also control whether you'll receive text or binary attachments (for graphics, spreadsheets, etc.).

Lotus cc:Mail Mobile for Windows implements filters which qualify messages before they are downloaded to your laptop computer. Motorola AirMobile Wireless for cc:Mail software directly implements these same filters. These filters include message priority, message date, message size, message subject and message originator.



In addition, Motorola AirMobile Wireless Comm Client for cc:Mail implements upload filters as well. Users can change filters remotely without having to find a LAN administrator, altering message priority and message size filters from a remote portable. With this feature, messages which are sent (stored in the user's Outbox) are not transmitted wirelessly unless they pass the user's message priority and size filters. These "rejected" messages will remain in the Outbox waiting to be sent via another communication medium (e.g., a direct LAN connection).

## 2 Installing, Adding Licenses and Configuring Motorola AirMobile Wireless Comm Server for cc:Mail

This chapter provides instructions for installing, adding licenses and configuring Motorola AirMobile Wireless Comm Server for cc:Mail on an IBM compatible personal computer or server.

### Installing Motorola AirMobile Wireless Comm Server for cc:Mail

Follow the instructions in this section to install Motorola AirMobile Wireless Comm Server for cc:Mail or to add additional user licenses to the same installation.

Before installing Motorola AirMobile Wireless Comm Server for cc:Mail, you must install a 386 or 486 PC on your LAN. This PC must mount or attach to the network directory associated with your cc:Mail PostOffice (e.g., M:\CCDATA).

This PC must also attach to a network drive containing the following cc:Mail Client programs: MAILENG.DLL and MEMMAN.DLL. The location of these files must be in your path statement. These files are commonly found in the shared network directory which contains the Lotus cc:Mail Windows Client. If your site does not have Windows Client software available on a shared directory, you can install either cc:Mail Windows Client or cc:Mail Mobile for Windows Client on your Comm Server. Each of these installations provide the required files.

**Note:** If the intended users of the Motorola AirMobile Comm Server for cc:Mail are on multiple PostOffices across multiple network directories, your Comm Server must attach to each network directory of each cc:Mail PostOffice (e.g., N:\CCDATA2, O:\CCDATA3).

## 1. Installation preparation

To install Motorola AirMobile Wireless Comm Server for cc:Mail, you must know the following:

- ☐ The directory path containing your cc:Mail LAN PostOffice (e.g., M\CCDATA)
- ☐ The logon name for each cc:Mail Mobile user you wish to register with the Comm Server
- ☐ The name of the postoffice for each registered user
- ☐ The directory path to the postoffice of each registered user
- ☐ The wireless radio ID of the Motorola AirMobile Comm Server for cc:Mail
- ☐ The COM port to be used by the Comm Server to communicate with the wireless radio (e.g., COM1, COM2)

## 2. Install Motorola AirMobile Wireless Comm Server for cc:Mail

- a) Start Windows (if it isn't currently running)
- b) Insert the Motorola AirMobile Wireless Comm Server for cc:Mail Disk in your 3.5" floppy drive
- c) Choose Run from the File menu
- d) Type the SETUP command:

drive:SETUP

For example, if the disk is in drive A:, type:

A:SETUP

After a few moments, a "Setup" dialog menu appears, prompting you for the installation directory.

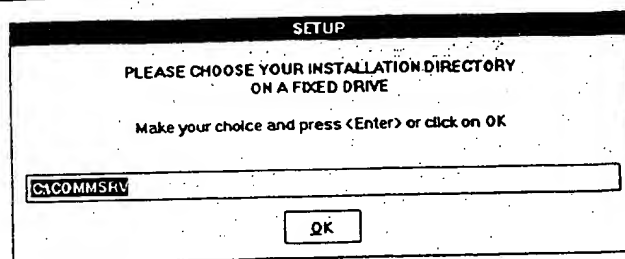


Figure 2-1 The Setup dialog menu

- e) Enter the path to install the Motorola AirMobile Comm Server for cc:Mail (e.g., C:\COMMSRV).

When the installation is complete, a new Program Group will be created with two AirMobile icons (see figure 2-2).

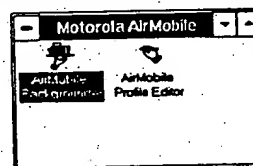


Figure 2-2 Windows program group created during installation



## Adding Additional User Licenses to Your Comm Server

You can expand your Comm Server license for additional users by purchasing additional copies of Motorola AirMobile Wireless for cc:Mail software. The software is available for 1, 5 or 10 users and is installed according to the instructions in the paragraph titled Installing Motorola AirMobile Comm Server for cc:Mail. Adding additional users is cumulative.

## Configuring Motorola AirMobile Wireless Comm Server for cc:Mail

Follow the instructions in this section to configure Motorola AirMobile Wireless Comm Server for cc:Mail using the Motorola AirMobile Profile Editor.

The AirMobile Profile Editor is used to:

- ☐ Define a default user record which contains the default values for all users when initially registered with the Comm Server.
- ☐ Register each user who is authorized to access their cc:Mail via the Motorola AirMobile Comm Server for cc:Mail.
- ☐ Configure the Motorola AirMobile software with system configuration information (e.g., wireless radio addresses, COM port, etc.).

1. Launch "Profile Editor". In Windows, double-click the "AirMobile Profile



2. Confirm to build the AirMobile User directory.

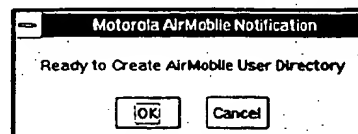


Figure 2-3 The AirMobile Wireless for cc:Mail status screen.

When launched for the first time, the AirMobile Profiler will automatically build a database to retain essential information. Click "OK" to continue. A blank user profile screen displays (Figure 2-4).

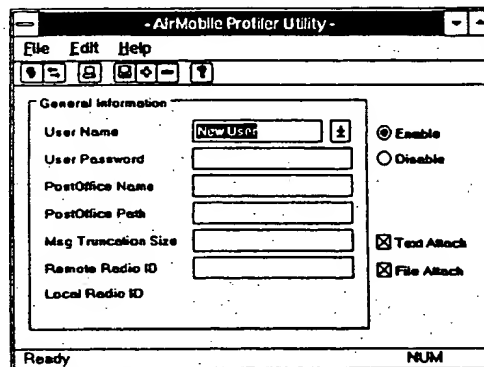


Figure 2-4 User Profile Configuration screen.

3. Set the "Default Profile Settings" for your AirMobile Wireless Comm Server.

Setting the "Default Profile Settings" defines the default values to be automatically assigned to each new user added to the AirMobile Wireless Comm Server for cc:Mail. This is particularly useful to define default values for entries which are often the same among users, such as "PostOffice path" or "PostOffice Name".

- a) Select "Default Profile Settings" from the Edit menu of the Profile Editor. The default user record appears (figure 2-5).

Figure 2-5 Default Profile Settings menu

- b) Enter the default PostOffice Name

Position your cursor to the PostOffice Name field and enter the name of your cc:Mail LAN PostOffice (e.g., ACME-PostOffice).

- c) Enter the default PostOffice Path

Position your cursor to the "PostOffice Path" field and enter the path to use to access your cc:Mail LAN PostOffice from the Comm Server (e.g., M:\CCDATA).

Figure 2-6 Default Profile Settings menu, partially completed.

- d) Save the default settings.


Save the "Default Profile Settings" record by selecting "Save" from the File pull-down menu or by clicking on the "Save" icon on the tool bar.

**Note:** If you wish, you may set default values for the remaining record attributes.

- e) Select the "New User" record

Click the drop-down combo-box associated with the "User Name" field and select the name "New User".


## f) Delete the "New User" record.

Select the "Delete" button  from the tool bar or choose "Delete this profile record" from the File menu. This will delete then re-add your first "New User" record with all of your default values initialized.

## 4. Registering Users with the Motorola AirMobile Wireless Comm Server for cc:Mail.

Follow this procedure to add each wireless cc:Mail user to your Comm Server:

## a) Add a "New User" record.

Click on the "Add Record" button  on the tool bar or select "New Profile Record" from the File menu. Notice the default values defined in the default record are copied into this "New User" record.

## b) Enter the "User Name"

Enter the name of the wireless cc:Mail user in the "User Name" field, removing the characters "New User".


## c) Verify the "PostOffice Path" accuracy.

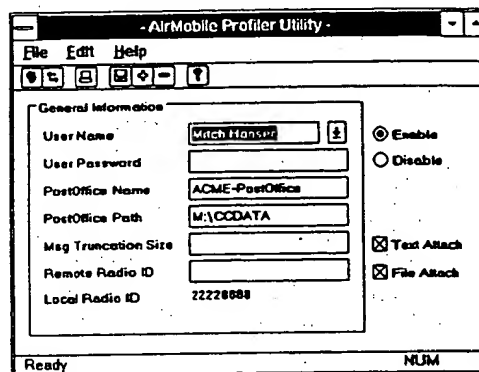
Verify the value in the "PostOffice Path" field is accurate for this user. If it is not accurate, position your cursor in this field and enter the appropriate value.

## d) Verify that the "PostOffice Name" is accurate.

Verify that the value in the "PostOffice Name" field is accurate for this user. If it is not accurate, position your cursor in this field and enter the appropriate value.

## e) Save the record.

Save this user record by selecting "Save" from the File pull-down menu or by clicking on the "Save" icon  on the tool bar. Figure 2-7, illustrates the minimum required fields for a new user record.



The screenshot shows the "AirMobile Profiler Utility" window. It has a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with several icons. The main area is titled "General Information" and contains the following fields and controls:

- User Name:** A text box containing "Witch Hanson" with a small icon to its right.
- User Password:** A text box that is empty.
- PostOffice Name:** A text box containing "ACME-PostOffice".
- PostOffice Path:** A text box containing "M:\CCDATA".
- Msg Truncation Size:** A text box that is empty.
- Remote Radio ID:** A text box that is empty.
- Local Radio ID:** A text box containing "22228888".
- Enable/Disable:** Two radio buttons, with "Enable" selected.
- Text Attach:** A checked checkbox.
- File Attach:** A checked checkbox.


At the bottom of the window, there is a status bar with the word "Ready" on the left and "NUM" on the right.

Figure 2-7 Example of required fields for a new user

Note: The user password, remote radio ID and all filter settings are set remotely by the wireless cc:Mail user. Therefore, the Comm Server administrator does not need maintain this information for users.

Repeat steps "a" through "e" to register each user.

## 5. Setting the Comm Server's local "System Configuration"

- Display the "System Configuration" dialog by selecting "System Configuration" from the **Edit** pull-down menu or by clicking on the "System Configuration" icon  on the tool bar. Figure 2-8 illustrates the "System Configuration" dialog.

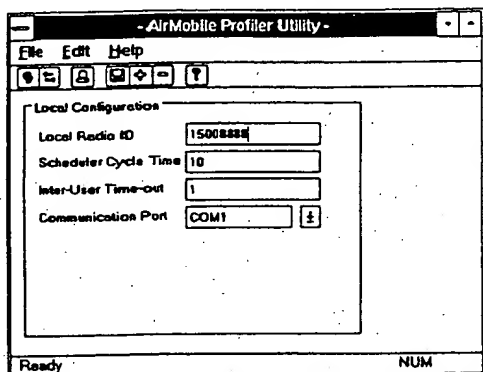


Figure 2-8 System Configuration dialog

Enter the information as described below.

**Local Radio ID:** Enter the Radio ID of the wireless modem your Comm Server will use to interface with the wireless network. Some wireless network services, including DataTAC 5000 and others, use Home Area network addressing. For these network services, you must enter both the Home Area and Radio ID in Local Radio ID field, separating the two numbers with a hyphen. For example, if you are in Home Area 12 and the Local Radio ID is 88888888, enter 12-88888888 in the Local Radio ID field. Your wireless network services provider will provide you with Home Area ID information.




**Scheduler Cycle Time:** Defines the number of seconds to wait between checking active user's inboxes. For example, if you enter "30" in this field, the inbox of each active user will be checked every 30 seconds for the presence of messages.

**Inter-User Time-out:** Defines the number of seconds to wait between checking the next user's Inbox. Use this parameter to space out inquiries to a mail server.

**Communication Port:** Defines the communication interface used by the wireless modem for the Comm Server. Click on the down-arrow and select either COM1 or COM2.

- Save the "System Configuration" information.

Save the "System Configuration" by selecting "Save" from the **File** pull-down menu or by clicking on the "Save" icon  on the tool bar.

- Converting wireless modem addresses to Base-10. Motorola AirMobile Software for cc:Mail records the identification numbers of wireless modems in normal numerical format. Because some wireless modems provide their ID numbers in hexadecimal format, Motorola AirMobile software provides a built-in hexadecimal Radio ID Calculator to assist administrators and users in correctly configuring these Radio IDs. Anytime a hexadecimal Radio ID value is entered or changed, whether on the server's wireless modem or the user's wireless modem, you will be asked if you would like to convert your Radio ID to a Base-10 value. Select YES. Note that the default option is NO, the value entered for normal Base-10 numbers.

Wireless modems manufactured for DataTAC networks (e.g., Ardis) are commonly stamped with Radio IDs in hexadecimal format. If you are using these hexadecimal IDs, convert this number before proceeding by clicking on the YES button.

If you are using a MOBITECH network, select NO.



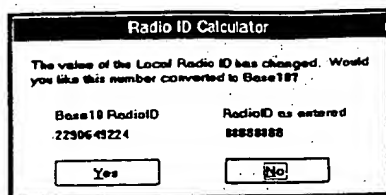


Figure 2-9 The Radio ID Calculator menu

- d) Exit the AirMobile Configuration Tool.

Exit the "AirMobile Configuration Tool" by selecting "Exit" from the File pull-down menu or simply double-click on the System menu.



### 3 Running Motorola AirMobile Wireless Comm Server for cc:Mail

This section describes how to run Motorola AirMobile Wireless Comm Server for cc:Mail and defines the user interface.

#### Overview

Motorola AirMobile Wireless for cc:Mail software operates much like Lotus' cc:Mail Background. It downloads messages (passing download filters) from a LAN-based inbox to the cc:Mail Mobile Inbox. It also uploads messages from cc:Mail Mobile's Outbox to the LAN-based mail server for delivery.

The Motorola AirMobile Wireless for cc:Mail product is a complementary addition to the Lotus cc:Mail Mobile program. It extends the cc:Mail Mobile client with new wireless communication capabilities previously not, and at the same time does not disrupt or prevent the use of existing cc:Mail Mobile communication methods.

While Motorola's AirMobile Wireless Comm Server for cc:Mail can be compared to Lotus' cc:Mail Background program, there are also key differences, some of which may change your perspective of mobile e-mail. These key differences are explained below.

#### ☐ Connected without maintaining a session

Motorola AirMobile Wireless for cc:Mail software provides a secure and authenticated virtual wireless communication channel between your laptop and your LAN-based cc:Mail server. This virtual communication channel enables messages to be immediately downloaded when they are received, or uploaded when they are sent. This eliminates the batch mode of operation used by cc:Mail Background.

#### ☐ Messaging models: client poll and server push

Motorola AirMobile Wireless for cc:Mail software implements both the traditional e-mail "client poll" and the more efficient "server push" models of message delivery. cc:Mail Background implements the "client poll" model only.



With Motorola AirMobile, messages are "pushed" out to a laptop PC from the server over the wireless network; users do not have to constantly call in to check for messages. This implementation of "server push" eliminates unnecessary communication between the client and server, minimizing communication costs and artificial delivery delays.

When a user sends a message while Motorola AirMobile is running, the message will be immediately processed from the user's outbox, assuming it passes upload filters, and be delivered to the LAN-based cc:Mail server for ultimate delivery.

When a message arrives in a LAN-based cc:Mail Inbox, Motorola AirMobile software will immediately download the message to the user's laptop, assuming it passes download filters, placing it in the cc:Mail Mobile Inbox.

#### ☐ Server based filters for downloads

AirMobile Wireless Comm Server maintains a copy of the filter settings defined by each Motorola AirMobile Client. Filter settings on the Comm Server are updated transparently and remotely by each Client. When a Client changes a filter, the changes are automatically propagated wirelessly to the Comm Server for that user.

Server-based filters for each user define the criteria which must be satisfied before a message will be "pushed" to a registered client. By contrast, cc:Mail Background does not support server-based filtering nor does it support server-push message handling.

#### ☐ Client based filters for uploads

Motorola AirMobile uses the message size and message priority filter settings defined in the cc:Mail Mobile client as upload filters. These filters control how messages sent by clients are uploaded from their cc:Mail Mobile Outbox. Messages which pass a client's filters will be uploaded to the Motorola AirMobile Comm Server. Messages which do not meet a client's upload filters will remain in their Outbox waiting to be sent via another

communication method (e.g., a direct LAN connection) or until the client's filters are changed.

Lotus cc:Mail Background does not apply any filters to the upload its process.

#### ☐ Granularity filtering for message download

Motorola AirMobile gives clients the ability to download only specific portions of their messages, even when the message does not pass other filter criteria. For example, clients can download the first 100 characters of a message rejected as too long by an upload filter. This enables a user to receive the portion of a message which is most valuable: the first part of a text message.

#### ☐ User Interface

The Motorola AirMobile user interface summarizes the number of messages sent and received, the current state of communications and gives the user a log window that documents all major wireless communication events

## Launching Motorola AirMobile Wireless Comm Server for cc:Mail

### Launching from Windows

Motorola AirMobile Wireless Comm Server for cc:Mail is started from Windows by simply double-clicking on the AirMobile Backgrounder icon.

Upon launching Motorola AirMobile Wireless Comm Server for cc:Mail, you will initially see a copyright "splash screen" which will disappear after about 5 seconds (figure 3-1).

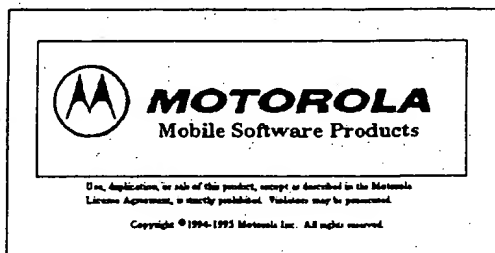




Figure 3-1 Motorola AirMobile Wireless Comm Server for cc:Mail splash screen.

The splash screen will be replaced by the Motorola AirMobile Wireless Comm Server for cc:Mail main dialog (figure 3-2).

Your cursor will change to an "hour glass" shape while Motorola AirMobile initializes the communication port and verifies network coverage.

During the initialization, the "network status indicator" has a red slash through it  signifying your wireless network connection is not active. After successful initialization of the communications port and passing a network coverage test, the red slash disappears .



If the initialization fails or the wireless network is not accessible, the red slash will continue to be displayed, even after the "hour glass" mouse returns to a pointer. See the troubleshooting if you experience this problem.

Once the red slash disappears, the Motorola AirMobile Wireless Comm Server is up and running, listening for requests from registered clients.

Test the Comm Server by sending a message from a registered client to your Comm Server.



## Motorola AirMobile Wireless for cc:Mail Interface Description

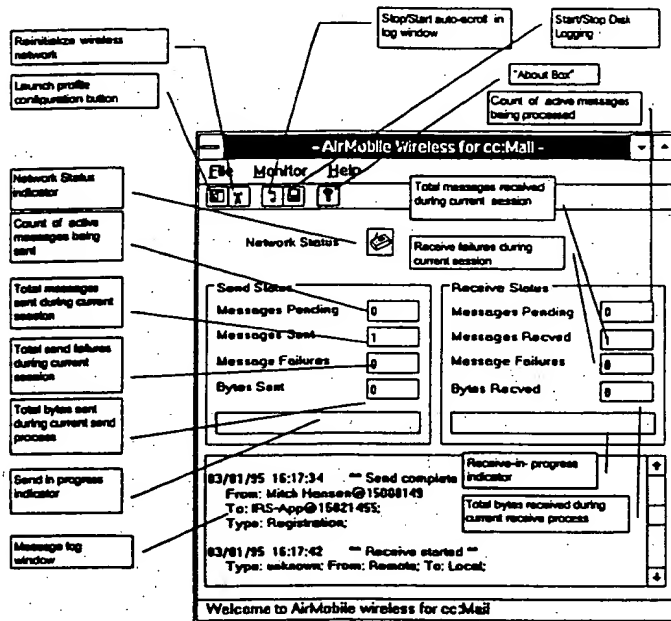


Figure 3-2 The AirMobile for cc:Mail main dialog screen.



## AirMobile Wireless Server for cc:Mail Controls

The Motorola AirMobile Wireless Comm Server for cc:Mail Main Menu provides several key functions to help manage the communication interface.

### Launch Profiler

Click to launch the Profile Configuration Tool, used to define users in the Motorola AirMobile Wireless Comm Server for cc:Mail.

### Initialize Wireless Network

Click on this button (if not already depressed) to reinitialize the network connection after a failure.

### Stop/Start auto-scroll of log window

Click this button to stop and start the auto-scroll feature of the log window. When turned off, the button appears depressed (grayed out) and the auto-scroll feature will be disabled. This enables users to scroll back through the log window to review communication activities without the distraction of the window jumping forward when new events are logged. New log events will continue to be appended to the bottom of the window in either on or off mode.

### Stop/Start Disk Logging

When depressed, messages displayed in the log window are also written to a disk log file called CURRLOG.TXT. When in the up position, messages are displayed in the log window but not written to disk.

The log file CURRLOG.TXT will grow to the size specified in the LogFileSize Entry of the Communications section of the RFMLIB.INI file. The default value of the LogFileSize Entry is 30,000 bytes. Once CURRLOG.TXT reaches the LogFileSize, the contents of CURRLOG.TXT are rolled over to a file named PREVLOG.TXT. If a PREVLOG.TXT file already exists, it is replaced.

### About button

Click this tool button to display detailed information about the application, including version number.





## Active User Status

When debugging problems or simply monitoring activity you may want to see which users are actively using the Comm Server. You can view active users by selecting "Active User Status" from the Monitor menu.

Figure 3-3 illustrates that user "Mitch Hansen" has successfully accessed the Comm Server and was fully authenticated. The "Runtime" field indicates the number of minutes and seconds this user has been inactive.

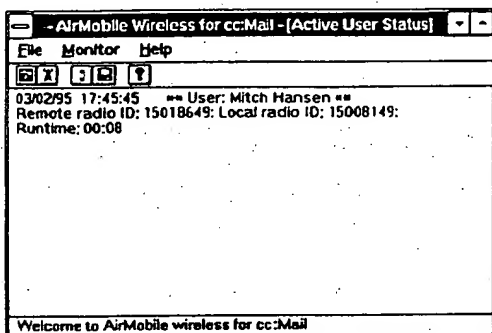


Figure 3-3 Active User Status dialog

Each active user entry is color coded to provide a quick assessment the Comm Server's overall activity level.

### Status Color Indicators

- Green: The user has been fully authenticated and two-way communication has occurred.
- Yellow: The user has been fully authenticated, however, two-way communication has not yet occurred.



- Red: The user has been inactive for 18 minutes and will be automatically removed from the "Active User Status" dialog in 2 minutes if no further communication between the Comm Server and this client occurs.

**Note:** A fully authenticated and active user (green or red status) will be removed from the "Active User Status" table if the Comm Server encounters a failure during a communication transmission to that user. This prevents unnecessary network retries by the Comm Server, freeing it up to process other active users.

### User Registration Process

The Motorola AirMobile Wireless for Comm Client for cc:Mail is configured to register with the Comm Server every 20 minutes if no e-mail messages have been sent or received. This registration process reaffirms to the Comm Server that the Comm Client continues to be available via the wireless wide-area network. As discussed in the "Active User Status" section of this manual, a Comm Client who is registered in the Comm Server but inactive for more than 20 minutes will be automatically removed from the Comm Server's "Active User Table".



## 4 Message Filtering

### Introduction

This section describes message filtering. Although message filters are defined and controlled by the clients, it is important that network managers understand the importance of proper filtering: the available filter options can save your users time and money.

### Overview

Message filtering is a critical component of any mobile application that uses communication interfaces which have limited throughput and tariffs based on time or usage. This is especially true for wireless wide-area packet networks. To maximize the efficiency and usefulness of information downloaded over wireless networks, Lotus cc:Mail Mobile and Motorola AirMobile Wireless Comm Client for cc:Mail provide a complementary set of message filters.

Lotus cc:Mail Mobile for Windows implements a set of filters which it uses to qualify messages before they are downloaded to a laptop computer. Motorola AirMobile Wireless Comm Client for cc:Mail directly implements the same filters: message priority, message date, message size, message subject, and message originator.

In addition to supporting the cc:Mail Mobile filters for message download, Motorola AirMobile Wireless Comm Client for cc:Mail implements upload filters as well. With this feature, messages which a user sends (stored in your Outbox) are not transmitted wirelessly unless they pass the user's message priority and message size filters. These "rejected" messages will remain in the user's Outbox waiting to be sent via another communication medium (e.g., direct LAN connection).

AirMobile also provides extended granular filter attributes, allowing the user to control the size of messages to be received. These granular filters are configured via the Motorola AirMobile Wireless Comm Client interface. With the granular filters, users can also choose to download only specific portions of messages. These granularity filters provide greater control over the information downloaded to a laptop. The following summarizes the granularity filter attributes defined in the Motorola AirMobile Wireless Comm Client for cc:Mail interface.

1. Truncate message size
2. Text attachments
3. File attachments



## Configuring Message Filters with Lotus cc:Mail Mobile

Follow the instructions in this section to configure the upload and download message filter criteria for Motorola AirMobile Wireless Comm Client for cc:Mail using the cc:Mail Mobile for Windows filter setup.

For a full explanation on how to set filter settings within cc:Mail Mobile, please refer to the cc:Mail Mobile for Windows manual.

Below are basic instructions for setting filters within the cc:Mail Mobile application.

### 1. Load cc:Mail Mobile for Windows.

If Lotus cc:Mail Mobile isn't already loaded, load cc:Mail Mobile for Windows. Please refer to the Lotus cc:Mail Mobile for Windows User manual for details.

### 2. Choose Filters from the Mobile menu.

The Lotus cc:Mail Mobile for Windows Filter Dialog Box is displayed.

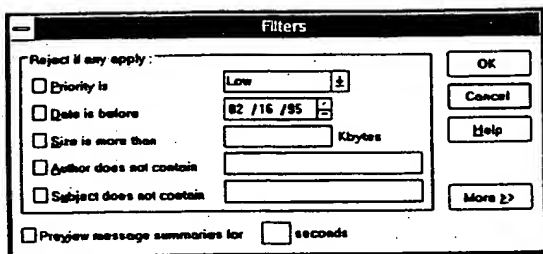


Figure 4-1 Lotus cc:Mail Mobile for Windows Filter Dialog Box

### 3. Select the filters to apply to messages, and enter the appropriate criteria for each filter as described below.

**Note:** Priority and Size filters are applied to messages being uploaded.

**Note:** Priority, Size, Author, Date and Subject filters are applied to downloaded messages.

**Priority:** AirMobile software filters messages by priority. Low rejects low-priority messages. Low or Normal rejects both low-and-normal priority messages. To send and receive all messages regardless of priority, do not check the filter priority box.

**Date:** AirMobile software filters messages by date sent. Messages will be rejected if sent before the date specified. This option is useful if users haven't retrieved messages for several days and want to receive only the most recent messages.

Use the arrow buttons to raise or lower the numbers representing the month, day and year.

**Size:** AirMobile software filters messages by size. AirMobile rejects all messages greater than the size specified. Filtering by size helps conserve space on the hard disk and minimize transmission costs.

**Note:** Message size is calculated based on the hard-disk space required, not the transmission size. AirMobile implements compression algorithms in its wireless transport which significantly reduces transmission costs while increasing aggregate transmission speeds. AirMobile's compression typically yields at least 2:1 ratios. This means that a 4K message could be transmitted wirelessly in half the time than otherwise required.

**Author:** AirMobile software filters messages by author. AirMobile rejects all messages except those sent by the person specified.

Enter the first name, last name or both, or the name of the postoffice from which messages are to be received. The text entered does not have to be an exact match; if the text matches any part of the Author field, the filter is applied.

**Subject:** AirMobile software filters incoming messages by subject. AirMobile rejects all messages except those whose subject does not contain the word or words specified.

Enter a subject. The text entered does not have to be an exact match; if the text matches any part of the Subject field, the filter is applied.

**Note:** Motorola AirMobile Wireless Comm Client for cc:Mail does not support cc:Mail Mobile rules definition.

4. Choose OK when finished selecting filters and entering the criteria.

**Note:** If any filter settings were changed, these changes will be communicated to the AirMobile Comm Server for cc:Mail automatically. This enables intelligent download filtering to be performed at the Comm Server, reducing transmission time and costs.

## Configuring AirMobile Granular Message Filters

Follow the instructions in this section to configure AirMobile Wireless granular download filters.

Motorola AirMobile Wireless for cc:Mail software supplements the cc:Mail Mobile message filter attributes with an extended set of granular download filter attributes. These attributes are configured via the Motorola AirMobile Wireless Client Server interface. The granular download filters enable users to download only specific portions of messages which are rejected by all other download filters. These granularity filters provide clients with greater control over the information downloaded to their laptops.

The following list summarizes the granularity filter attributes defined in the Motorola AirMobile Wireless Comm Server for cc:Mail interface.


1. Truncate message
2. Text attachments
3. File attachments

1. Load AirMobile Wireless for cc:Mail.

In Windows, double-click the "AirMobile Wireless for cc:Mail" icon



2. Run Profiler

Choose **Profiler** from the **File** pull-down menu or choose the Profiler icon  from the AirMobile Wireless for cc:Mail toolbar.

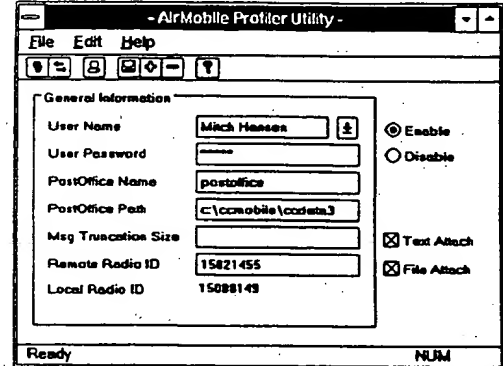


Figure 4-2 Motorola AirMobile Wireless Comm Server for cc:Mail Profile dialog

3. Set the granularity filters that to apply **ONLY** to downloaded messages, and enter the appropriate criteria for each filter as described below.



**Message Truncation Size:** AirMobile filter which defines how to process downloaded messages which pass all filters except message size.

This filter enables AirMobile to download the first *n* bytes of a message that would have been rejected only because of the size of the message. These messages otherwise would have remained in your LAN-based cc:Mail Inbox. Setting this value to zero will allow you to receive the headers of all messages which are rejected by your download filters.

**Note:** This process marks messages as "Read" and prevents downloading of the entire message at a later time.

**Text Attach:** The AirMobile filter that defines a preference to receive Text Item components of e-mail messages.

When "checked" ☒, users will receive Text Attachments associated with messages which pass all other filters and are downloaded to the cc:Mail Mobile Inbox.

When "unchecked" ☐, all Text Attachments will be stripped off messages which pass all other filters prior to being downloaded to the cc:Mail Mobile Inbox.

**File Attach:** This AirMobile filter defines your preference to receive non-Text Item components of e-mail messages. Spreadsheet, word-processing and graphic files are common examples of such attachments.

When "checked" ☒, the software will download File Attachments associated with messages which pass all other filters.

When "unchecked" ☐, all File Attachments will be stripped off messages which pass all other filters prior to being downloaded to the user's cc:Mail Mobile Inbox.



## 5 Troubleshooting

This section describes errors and problems which may occur during configuration or use of the Motorola AirMobile Wireless Comm Server for cc:Mail and common remedies to resolve each.

### ERROR: Logon

Check the user name, password and path to the postoffice in the Profile Configuration Tool.

### Messages not uploaded from the Outbox to the Communication Server

1. Check to make sure messages are in your Outbox.
2. Check the filter settings in cc:Mail Mobile to verify the message in your Outbox passes the priority and size filters.
3. Check to make sure your Registration Status indicator is green.
4. Check to ensure your AirMobile account is enabled by launching your Profile Editor.

### Messages not downloaded from the Communication Server to cc:Mail Mobile

1. Check the filter settings in cc:Mail Mobile to verify your download filters in cc:Mail Mobile and the granularity filters in AirMobile are set appropriately.
2. Check to make sure your Registration Status indicator is green.

### Initialization: Out of sequence error

Ignore this message. It simply identifies that multiple registration confirmation requests were received.



### Initialization Error Failed to logon to radio network Scheduler terminated

1. Check the "System Configuration" to ensure that the correct communication interface (COM PORT) is being used.
2. Exit and restart the AirMobile Wireless Comm Server for cc:Mail application.
3. The user may be out wireless network coverage. Contact the network service provider and report this problem.

### Text portions of message were not downloaded

Check the "Text Attachments" granular filter setting in your profile configuration tool. If the user wants to receive text attachments, make sure this filter is checked.

### File attachments on message were not downloaded

Check the "File Attachments" granular filter setting in the profile configuration tool. If the user wants to receive text attachments make sure this filter is checked.

### Message says "(...Truncated by AirMobile)"

This indicates that the message passed all filter attributes except the message size filter and that a truncation value was specified in the granular filter "Truncation Size" in the AirMobile Profile Configuration utility.

### Error: Maximum User Licenses in use

You have attempted to add more users than allowed by your license agreement.

### Red slash does not disappear from Network Status Icon

1. Check your "System Configuration" to ensure you are using the correct communication interface (COM PORT)

2. Exit and restart the AirMobile Wireless Comm Client for cc:Mail application.
3. Check the battery strength of your wireless modem, and replace or recharge.
4. Verify that the wireless modem is fully configured and connected to your laptop computer.
5. You may be outside of wireless network coverage. Contact the network service provider and report this problem.

### Registration Status Indicator is red

Motorola AirMobile was unable to initialize the wireless modem and wireless network service. Verify your wireless modem and Motorola AirMobile software is properly configured and turned on. Verify with your wireless network service provider for coverage in the area from which you are trying to communicate.

### Registration Status Indicator is yellow

Indicates the Motorola AirMobile software was able to initialize the wireless modem and wireless network service. Motorola AirMobile is attempting to register with the AirMobile Comm Server.

Check for "Send Started" and "Send Complete" transactions in the scrollable log window as in the following example:

```
2/15/95 10:15      *** SEND STARTED ***
From: Mitch Hansen6999999999
To: IRS-App8888888888
Type: Registration
```

```
2/15/95 10:16      *** SEND COMPLETED ***
From: Mitch Hansen6999999999
To: IRS-App8888888888
Type: Registration
```

If these transactions are present, you are communicating with the Comm Server and waiting for the Comm Server to authenticate you and return your registration request.



Failure to receive a return registration from the Comm Server after successfully sending a registration request indicates that one of the following problems may exist.

1. Your cc:Mail logon name is not registered with the Comm Server.
2. Your cc:Mail Mobile and AirMobile Comm Client password do not match your cc:Mail LAN PostOffice password.
3. Your record on the AirMobile Comm Server may have the incorrect PostOffice path defined.
4. Your record on the AirMobile Comm Server may have the incorrect PostOffice name.
5. The AirMobile Comm Server may have lost LAN access to your PostOffice.
6. Your record on the AirMobile Comm Server may be disabled.

#### Send failed

Indicates that the AirMobile Client software has failed to communicate the AirMobile Comm Server. Verify the remote Radio ID for accuracy. Verify the status of the AirMobile Comm Server, making sure the Comm Server is able to send and receive data.

#### Obtaining the MANID from a Mobidem wireless modem

The MANID can be read directly from a Mobidem device by simply turning the Mobidem unit on. Each time the Mobidem is turned on, it will display its MANID on the unit's liquid crystal display for approximately five seconds.

#### Obtaining the MANID from an InfoTAC wireless modem

The MANID can be read directly from an InfoTAC device by pressing the left-most Soft Key, marked CNFG, on the InfoTAC (there are four Soft Keys located below the InfoTAC's Liquid Crystal Display). This will display the InfoTAC's MANID on the first line of the Liquid Crystal Display. To return the InfoTAC to its normal mode, press the blue Home key on the InfoTAC.

#### Changing the battery on an InfoTAC wireless modem

Follow these steps exactly:

1. Unplug the InfoTAC from your laptop computer.
2. Power off the InfoTAC.
3. Change the battery of the InfoTAC.
4. Power on the InfoTAC.
5. Plug the InfoTAC back into your laptop computer.


#### A 1.94 ( or greater ) version of MAILENG.DLL is required

The Lotus cc:Mail Mobile software is using an old version of MAILENG.DLL which is not compatible with the Motorola AirMobile Wireless Comm Server for cc:Mail. Upgrade the cc:Mail Mobile software.



User complains some messages are left in their LAN inbox, not downloaded to their cc:Mail Mobile account via the Comm Server.

Check the user's filter settings. You can do this in the following steps:

1. Launch the *"Profile Editor"*
2. Choose the user's name from the drop-down combo-box associated with the *"User Name"* field.
3. Check the granularity filters (i.e., Text Attach, File Attach, Truncation Size) for accuracy.
4. Check the message filters screen by clicking on the *"Next Page"* button  on the Tool bar. This displays the filter settings for this user as defined by this user's cc:Mail Mobile Filter settings.

You can change these settings for the user, however, the next time the user modifies his filter settings, any manual changes will be overwritten.



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